REMARKS

The Applicants do believe that examination of this response will result in the introduction of new matter into the present application. Therefore, the Applicants, respectfully, request that the response contained herein be entered and that the claims, kindly, be reconsidered.

The Final Office Action objects to the drawings for shading of the various elements. Replacements drawings are submitted herewith without and shading

The Final Office Action dated April 4, 2005 has been received and carefully considered by the Applicants. Claims 1-42 are pending in the current application for invention. Claims 1-35, 38 and 40-42 are rejected by the Final Office Action. Claims 36, 37 and 39 are objected to as being dependent upon a rejected claims but otherwise states as being allowable. The foregoing amendment to the claims has incorporated the limitations of Claim 39 into amended Claim 38, which is believed to be allowable. The Applicants, respectfully, traverse the rejections to the claims contained in the Final Office Action and previous office actions.

The Final Office Action rejects Claim 40 under 35 U.S.C. §112, second paragraph, for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. The Examiner states that the term "feedback oscillator signal" lacks proper antecedent basis. The foregoing amendment to the claims has corrected this oversight.

The Final Office Action rejects Claims 1-9, 13, 17-25, 29, 33-35, 38, 41 and 42 under 35 U.S.C. §103(a), for allegedly being unpatentable over U.S. Patent No. 5,019,769 issued in the name of Levinson (hereinafter referred to as Levinson).

Regarding Claim 1, the rejection contained within the Final Office Action alleges that Levinson discloses the subject matter defined by rejected Claim 1, except that the Examiner admits that Levinson does not disclose that the input signal is an RF signal. The Applicants would like to, respectfully, point out that the Final Office Action alleges that Levinson, in Figure 3, discloses a signal level derived from a back facet feedback signal. The Applicants, respectfully, point out that rejected Claim 1 defines subject matter for "the transmitter feedback loops include an RF level derived from a back facet feedback signal". The Final Office Action does not address the subject matter for the

transmitter feedback loops include an RF level derived from a back facet feedback signal. Accordingly, all of the elements defined by rejected Claim 1 are not found in the rejection made by the Office Action. Therefore, the rejection to Claim 1 contained within the Final Office Action does not make a *prima facie* case of obviousness. The Applicants, respectfully, point out that the subject matter for "the transmitter feedback loops include an RF level derived from a back facet feedback signal" is not disclosed or suggested by Levinson. Therefore, this rejection is, respectfully, traversed.

Regarding Claim 2, the Examiner contends that Levinson discloses the subject matter defined by rejected Claim 2. The Applicants, respectfully, point out that Claim 2 depends from Claim 1 and further narrows and defines Claim 1. Therefore, Claim 2 is believed to be allowable.

Regarding Claim 3, the Examiner contends that Levinson discloses the subject matter defined by rejected Claim 3. The Final Office Action alleges that Levinson discloses that the feedback loops operationally connected to the transmitter section include a first, second, and third transmitter section feedback loops. The Applicants, respectfully, disagree. Levinson only discloses a single line from photodiode 116 that could possibly be considered a feedback loop. The laser temp sensor that Levinson discloses provides a temperature indication but it is not within a loop. Moreover, there is no third feedback that could reasonably be considered to be within a loop from the transmitter section of Levinson. Therefore, this rejection is, respectfully, traversed.

Regarding Claim 4, the Examiner states that Levinson discloses the subject matter defined by rejected Claim 4. The Applicants, respectfully, point out that Claim 4 depends from Claim 1 and further narrows and defines Claim 1. Therefore, Claim 4 is believed to be allowable.

Regarding Claim 5, the Examiner states that Levinson discloses the subject matter for the first transmitter feedback loop is a constant power feedback loop in Figure 3 as elements "B" as described in col. 3, lines 1-7. The Applicants, respectfully, point out that element "B" is a node that indicates the voltage on the emitter of transistor 182 and not part of any transmitter feedback loop. Furthermore, the node "B" can not reasonably be construed as a constant power feedback loop. Therefore, this rejection is traversed.

Regarding Claims 6 and 8, the Examiner states that Levinson discloses the subject matter for the second transmitter feedback loop is a bias current feedback loop connected between the transmitter section and an attenuation circuit in an RF path. The Examiner alleges that elements 176 and 184 in Figures 3 and the descriptions located on col. 4, lines 56-68 and col. 5lines 49-58 disclose the aforesaid subject matter. The Applicants, respectfully, disagree. Element 176 is an RC filter and elements 184 is an attenuator. There is no disclosure or suggestion for a second transmitter feedback loop is a bias current feedback loop connected between the transmitter section and an attenuation circuit in an RF path in col. 4, lines 56-68 or col. 5lines 49-58. There is no disclosure or suggestion for a second transmitter feedback loop is a bias current feedback loop connected between the transmitter section and an attenuation circuit in an RF path within the four corner of Levinson. Therefore, this rejection is traversed.

Regarding Claim 7, the Examiner states that while Levinson does not disclose the attenuation circuit is a PIN transistor circuit that implementing a PIN transistor is a matter of obvious design choice. The Applicants would like to direct the Examiner's attention to the MPEP at §2144.04 wherein it is clearly stated that is determining if an elements is an obvious matter of design choice the "prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984)." The rejection within the Final Office Action does not provide any motivation within the cited reference, Levinson, to modify the attenuator taught therein to be formed from a PIN transistor. Therefore, this rejection can not stand and is traversed.

Regarding Claim 9, the Examiner states that Levinson discloses the subject matter for the third transmitter feedback loop being an RF level from a back facet monitor in photodiode 116, attenuator 184 and the discussion on col. 5, lines 49-58. The Applicants, respectfully, point out that Claim 9 depends from Claim 3 and further narrows and defines Claim 3. Therefore, since Claim 3 is believed to be allowable, Claim 9 is also believed to be allowable.

Regarding Claim 13, the Examiner states that Levinson discloses the subject matter for the first receiver feedback loop is an optical modulation voltage (OMV)

feedback loop, said optical modulation voltage feedback loop connected to RF circuitry in said receiver section. The Applicants, respectfully, point out that Claim 13 depends from Claim 4 and further narrows and defines Claim 4. Therefore, since Claim 4 is believed to be allowable, Claim 13 is also believed to be allowable.

Regarding Claim 17, the Examiner states that Levinson discloses the subject matter defined by Claim 17. The Applicants, respectfully, disagree. The Applicants would like to, respectfully, point out that the Final Office Action alleges that Levinson, in Figure 3, discloses a signal level derived from a back facet feedback signal. The Applicants, respectfully, point out that rejected Claim 17 defines subject matter for "the transmitter feedback loops include an RF level derived from a back facet feedback signal". The Final Office Action does not address the subject matter for the transmitter feedback loops include an RF level derived from a back facet feedback signal. Accordingly, all of the elements defined by rejected Claim 17 are not found in the rejection made by the Office Action. Therefore, the rejection to Claim 17 contained within the Final Office Action does not make a *prima facie* case of obviousness. The Applicants, respectfully, point out that the subject matter for "the transmitter feedback loops include an RF level derived from a back facet feedback signal" is not disclosed or suggested by Levinson. Therefore, this rejection is, respectfully, traversed.

Regarding Claim 18, the Examiner contends that Levinson discloses the subject matter defined by rejected Claim 18. The Applicants, respectfully, point out that Claim 18 depends from Claim 17 and further narrows and defines Claim 17. Therefore, Claim 18 is believed to be allowable.

Regarding Claim 19, the Examiner contends that Levinson discloses the subject matter defined by rejected Claim 19. The Final Office Action alleges that Levinson discloses that the feedback loops operationally connected to the transmitter section include a first, second, and third transmitter section feedback loops. The Applicants, respectfully, disagree. Levinson only discloses a single line from photodiode 116 that could possibly be considered a feedback loop. The laser temp sensor that Levinson discloses provides a temperature indication but it is not within a loop. Moreover, there is no third feedback that could reasonably be considered to be within a loop from the transmitter section of Levinson. Therefore, this rejection is, respectfully, traversed.

Regarding Claim 20, the Examiner states that Levinson discloses the subject matter defined by rejected Claim 20. The Applicants, respectfully, point out that Claim 20 depends from Claim 17 and further narrows and defines Claim 17. Therefore, Claim 20 is believed to be allowable.

Regarding Claim 21, the Examiner states that Levinson discloses the subject matter for the first transmitter feedback loop is a constant power feedback loop in Figure 3 as elements "B" as described in col. 3, lines 1-7. The Applicants, respectfully, point out that element "B" is a node that indicates the voltage on the emitter of transistor 182 and not part of any transmitter feedback loop. Furthermore, the node "B" can not reasonably be construed as a constant power feedback loop. Therefore, this rejection is traversed.

Regarding Claims 22 and 24, the Examiner states that Levinson discloses the subject matter for the second transmitter feedback loop is a bias current feedback loop connected between the transmitter section and an attenuation circuit in an RF path. The Examiner alleges that elements 176 and 184 in Figures 3 and the descriptions located on col. 4, lines 56-68 and col. 5lines 49-58 disclose the aforesaid subject matter. The Applicants, respectfully, disagree. Element 176 is an RC filter and elements 184 is an attenuator. There is no disclosure or suggestion for a second transmitter feedback loop is a bias current feedback loop connected between the transmitter section and an attenuation circuit in an RF path in col. 4, lines 56-68 or col. 5lines 49-58. There is no disclosure or suggestion for a second transmitter feedback loop is a bias current feedback loop connected between the transmitter section and an attenuation circuit in an RF path within the four corner of Levinson. Therefore, this rejection is traversed.

Regarding Claim 23, the Examiner states that while Levinson does not disclose the attenuation circuit is a PIN transistor circuit that implementing a PIN transistor is a matter of obvious design choice. The Applicants would like to direct the Examiner's attention to the MPEP at §2144.04 wherein it is clearly stated that is determining if an elements is an obvious matter of design choice the "prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984)." The rejection within the Final Office

Action does not provide any motivation within the cited reference, Levinson, to modify the attenuator taught therein to be formed from a PIN transistor. Therefore, this rejection can not stand and is traversed.

Regarding Claim 25, the Examiner states that Levinson discloses the subject matter for the third transmitter feedback loop being an RF level from a back facet monitor in photodiode 116, attenuator 184 and the discussion on col. 5, lines 49-58. The Applicants, respectfully, point out that Claim 25 depends from Claim 19 and further narrows and defines Claim 19. Therefore, since Claim 19 is believed to be allowable, Claim 25 is also believed to be allowable.

Regarding Claim 29, the Examiner states that Levinson discloses the subject matter for the first receiver feedback loop is an optical modulation voltage (OMV) feedback loop, said optical modulation voltage feedback loop connected to RF circuitry in said receiver section. The Applicants, respectfully, point out that Claim 29 depends from Claim 20 and further narrows and defines Claim 20. Therefore, since Claim 20 is believed to be allowable, Claim 29 is also believed to be allowable.

Regarding Claim 33, the Examiner states that Levinson discloses the subject matter defined by Claim 33. The Applicants, respectfully, disagree. The Applicants would like to, respectfully, point out that the Final Office Action alleges that Levinson, in Figure 3, discloses a signal level derived from a back facet feedback signal. The Applicants, respectfully, point out that rejected Claim 33 defines subject matter for "the transmitter feedback loops include an RF level derived from a back facet feedback signal". The Final Office Action does not address the subject matter for the transmitter feedback loops include an RF level derived from a back facet feedback signal. Accordingly, all of the elements defined by rejected Claim 33 are not found in the rejection made by the Office Action. Therefore, the rejection to Claim 33 contained within the Final Office Action does not make a *prima facie* case of obviousness. The Applicants, respectfully, point out that the subject matter for "the transmitter feedback loops include an RF level derived from a back facet feedback signal" is not disclosed or suggested by Levinson. Therefore, this rejection is, respectfully, traversed.

Regarding Claim 34, the Examiner contends that Levinson discloses the subject matter defined by rejected Claim 34. The Applicants, respectfully, point out that Claim

34 depends from Claim 33 and further narrows and defines Claim 33. Therefore, Claim 34 is believed to be allowable.

Regarding Claims 35, 41 and 42, the Examiner states that Levinson discloses the subject matter defined by Claims 35, 41 and 42. The Applicants, respectfully, disagree. The Applicants would like to, respectfully, point out that the Final Office Action alleges that Levinson, in Figure 3, discloses a signal level derived from a back facet feedback signal. The Applicants, respectfully, point out that rejected Claims 35, 41 and 42 define subject matter for "the transmitter feedback loops include an RF level derived from a back facet feedback signal". The Final Office Action does not address the subject matter for the transmitter feedback loops include an RF level derived from a back facet feedback signal. Accordingly, all of the elements defined by rejected Claims 35, 41 and 42 are not found in the rejection made by the Office Action. Therefore, the rejections to Claims 35, 41 and 42 contained within the Final Office Action do not make *prima facie* cases of obviousness. The Applicants, respectfully, point out that the subject matter for "the transmitter feedback loops include an RF level derived from a back facet feedback signal" is not disclosed or suggested by Levinson. Therefore, these rejections are, respectfully, traversed.

Regarding Claim 38, the foregoing amendment to the claims as included the features of Claim 39 into Claim 38. The Final Office Action objected to Claim 39 as being dependent upon a rejected base claim but otherwise allowable. Therefore, by incorporating the features of Claim 39 into Claim 38, the Applicants submit that Claim 38 is now allowable. Furthermore, Claim 40 depends from Claim 38 and therefore, Claim 40 is believed to be allowable.

The Final Office Action rejects Claims 10-12 and 26-28 under the provisions of 35 U.S.C. §103(a), for allegedly being unpatentable over Levinson in view of U.S. Patent No. 6,687,466 issued in the name to Chiappetta (hereinafter referred to as Chiappetta).

Regarding Claims 10 and 26, the Applicants, respectfully, point out that the rejection contained within the Final Office Action asserts that Chiappetta discloses an RF transmitter circuit with feedback. The Applicants, respectfully, disagree. Chiappetta discloses a distortion monitor that inputs predetermined frequencies to monitor distortion. Claims 10 and 26 define subject matter for a transmitter feedback. Chiappetta does not

pertain to transmitter feedback. The Applicants, respectfully request that the Examiner indicate the feedback path within Chiappetta that is being referred to. More specifically, the Applicants request that the Examiner indicate an RF feedback path from a back facet monitor operationally connected to an oscillator. The Applicants, respectfully, asserts that there is no RF feedback path from a back facet monitor operationally connected to an oscillator disclosed, or suggested, by Chiappetta or Levinson, either alone or in combination. Therefore, this rejection is respectfully traversed.

Regarding Claims 11 and 27, the Examiner contends that Chiappetta discloses the subject matter defined for the oscillator characterized by an operational frequency of about 100 kHz is a matter of obvious design choice. The Applicants would like to direct the Examiner's attention to the MPEP at §2144.04 wherein it is clearly stated that is determining if an elements is an obvious matter of design choice the "prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984)." The rejection within the Final Office Action does not provide any motivation within the cited reference, Chiappetta, to modify the oscillator taught therein to have an operational frequency of about 100 kHz. Therefore, this rejection can not stand and is traversed.

Regarding Claims 12 and 28, the Applicants, respectfully, point out that the rejection contained within the Final Office Action alleges that the combination of Levinson with Chiappetta discloses that the oscillator has an output signal, with the output signal coupled to an input of an RF detector, the RF detector having an attenuating output proportional to the input, and the attenuating output coupled to an attenuation circuit in an RF path. Specifically, the Examiner states that elements 116 and 184 as well as col. 3, lines 4-12 and col. 5, lines 49-58 of Levinson disclose the aforesaid subject matter. The Applicants, respectfully, disagree. Elements 116 and 184 as well as col. 3, lines 4-12 and col. 5, lines 49-58 of Levinson do not disclose an oscillator within the feedback loop. Additionally, there is no disclosure or suggestion for an oscillator within an output signal coupled to an input of an RF detector disclosed, or suggested, by Chiappetta or Levinson, either alone or in combination. Still further there is no disclosure, or suggestion, within Chiappetta or Levinson, either alone or in combination

for an RF detector with an attenuating output proportional to the input, and the attenuating output coupled to an attenuation circuit in an RF path. Therefore, this rejection is respectfully traversed.

The Final Office Action rejects Claims 14-16 and 30-32 as being unpatentable under the provisions of 35 U.S.C. §103(a), over Levinson in view of Chiappetta and further in view U.S. Patent No. 5,267,071 issued in the name to Little et al. (hereinafter referred to as Little et al.).

Regarding Claims 14 and 30, the Applicants, respectfully, point out that the rejection contained within the Final Office Action asserts the pilot channel disclosed Little et al. against the oscillator signal feedback loop defined by Claims 14 and 30. The Applicants, respectfully, point out that the pilot channel taught by Little et al. is a single channel that is selected by the bandpass filter 414 (see col. 8, lines 49-54) is not an oscillator. Therefore, the rejection within the Final Office Action does not find all the elements within the rejected claims and therefore, does not make a prima facie case of obviousness. Therefore, this rejection is respectfully traversed.

Regarding Claims 15 and 31, as previously stated the pilot channel disclosed Little et al. is not an oscillator. Furthermore, the Examiner contends that the 100kHz oscillator frequency is an obvious design choice. The Applicants would like to direct the Examiner's attention to the MPEP at §2144.04 wherein it is clearly stated that is determining if an elements is an obvious matter of design choice the "prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984)." The rejection within the Final Office Action does not provide any motivation within the cited reference, Little et al., to modify the oscillator taught therein to have an operational frequency of about 100 kHz. Therefore, this rejection can not stand and is traversed.

Regarding Claims 16 and 32, the Examiner alleges that Little et al. teaches an oscillator feedback loop that includes a device to modulate said oscillator feedback. The Applicants, respectfully, assert that this contention on the part of the Examiner is completely false. As previously discussed, there is no oscillator taught in the receiver feedback loop of Little et al. Furthermore, there is no device to demodulate an oscillator

feedback disclosed or suggested by Little et al., Chiappetta or Levinson, either alone or in combination. Therefore, this rejection is respectfully traversed.

Applicant is not aware of any additional patents, publications, or other information not previously submitted to the Patent and Trademark Office which would be required under 37 C.F.R. 1.99.

In view of the foregoing amendment and remarks, the Applicant believes that the present application is in condition for allowance, with such allowance being, respectfully, requested.

Respectfully submitted,

By

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